IS THE AMAZON BRASOKYO?
the extended urbanization of the Amazon
forces us to confront the question of power and democracy
### Inflows to the Amazon (1940-1980)

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1940</td>
<td>1,461,787</td>
<td></td>
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<tr>
<td>1950</td>
<td>1,834,185</td>
<td>2.33%</td>
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<tr>
<td>1960</td>
<td>2,561,782</td>
<td>3.34%</td>
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<tr>
<td>1970</td>
<td>3,603,860</td>
<td>3.47%</td>
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<tr>
<td>1980</td>
<td>5,885,536</td>
<td>5.03%</td>
</tr>
</tbody>
</table>

### Timelines and Events

- **1616**: European penetration and colonial economy
- **1850**: Rubber reorganization
- **1945**: Mining, lumbering, ranching, and energy
- **1970**: Land redistribution
- **2000**: Proliferation of cities and increase of agrarian reform settlements

#### Agglomerations along the Amazon river

- Estimated 2MM inhabitants in biome
- Active population of rubber tappers: 1,733 (0.035% of total population in 1830)
- Intense migration to expand the rubber extraction
- Active population in rubber exploration: 148,907 (12.4% in 1910)
- Many immigrants settled definitely and reverted to a mixed subsistence and exchange economy, in rural areas, or commerce, in cities.
- 2.6MM inhabitants in 1945
- 16MM inhabitants in 2000
- Active population in rubber extraction: 148,907 (12.4% in 1910)
- 2.6MM inhabitants in 1945
- 16MM inhabitants in 2000

#### Active population in rubber exploration

- 148,907 (12.4% in 1910)

### Rubber Tappers

- Active population: 1,733 (0.035% of total population in 1830)

### Rubber Exploration

- Population: 148,907 (12.4% in 1910)
Most energy-intensive refining and smelting

- Bauxite (Al): 220-250 GJ tonne⁻¹ (50% of production costs)
- Tin (Sn): 145-155 GJ tonne⁻¹
- Copper (Cu): 95-110 GJ tonne⁻¹
- Iron (Fe): 25-39 GJ tonne⁻¹

Energy base for primary aluminum production

- Coal: 22.5%
- Oil: 3.6%
- Gas: 0.1%
- Nuclear: 8.8%
- Hydroelectric: 65%
THE AMAZON IN THE ALUMINUM GEOGRAPHY

Sources: USGS Mineral Statistics; BGS Minerals; BNDES; Anuario Mineral DNPM; Japan Aluminum Association
85% extraction and production in the state of Para in the Amazon

LEGEND:
- Brasilia - Federal District
- Bauxite deposits/aluminum facilities
- Carajás Mining Complex
- Largest bauxite deposits

Brazilian iron largest importer

China production

Japan production (commodity and manufacture)
DEVELOPMENT IDEOLOGY BLENDED WITH SUSTAINABILITY

$\uparrow P = \uparrow ED$

$\uparrow D = \downarrow P$

$\uparrow D = \downarrow P = \downarrow ED$

POVERTY
ENVIRONMENTAL DEGRADATION
DEVELOPMENT
Locally felt problem is constructed, with clear idea of what ‘problem solved’ will look like:
An entry point for action is identified; a group of local agents is gathered to work on this problem.

**Initial action steps are identified by the**

- What can we do first to start solving the problem?

**Group communicates quick wins and lessons to bolster legitimacy and authority:**

Using evidence from stock-take to expand support.

**Key question:**
Did the prior iteration solve the problem?

**The group takes stock of experience:**

- What results were achieved?
- What lessons were learned?
- What challenges were encountered?
- How did we overcome the challenges?

**Action is taken:**
Members of the group are encouraged to take action and hold accountable for their steps.

**IF NO**
build on expanded authority; use lessons to adapt thinking about the problem, and iterate again.

**IF YES**
exit the process and think about diffusion or scaling.

Our alterurbanization seeks to dilute the extractive momentum that predominates by engaging in an intensive, democratic consultation that elevates the voice of the commons in the development of a regional agenda for urban life. The role of designers within our conceptualization is not to make a determination a priori about what this should look like for the Amazon; but instead act as facilitators that shepherd those that stand to be the most affected by the messy politics of setting a consensus course for the region.
THE AMAZON IN THREE MACRO REGIONS

- Consolidated settlements
- Central Amazon
- Western Amazon

Potential commons: existing indigenous lands, community reserves and agrarian reform settlements
Supporting towns and roads
Biodiversity health
ALTERURBANIZATION IN MICRO COSMOS

PARAGOMINAS
environmental regulations led by farmers

SURUI PEOPLE
a fifty-year plan to implement the indigenous vision of the future

MAMIRAUA
social organization, management and care to integrate forest life style in modernity